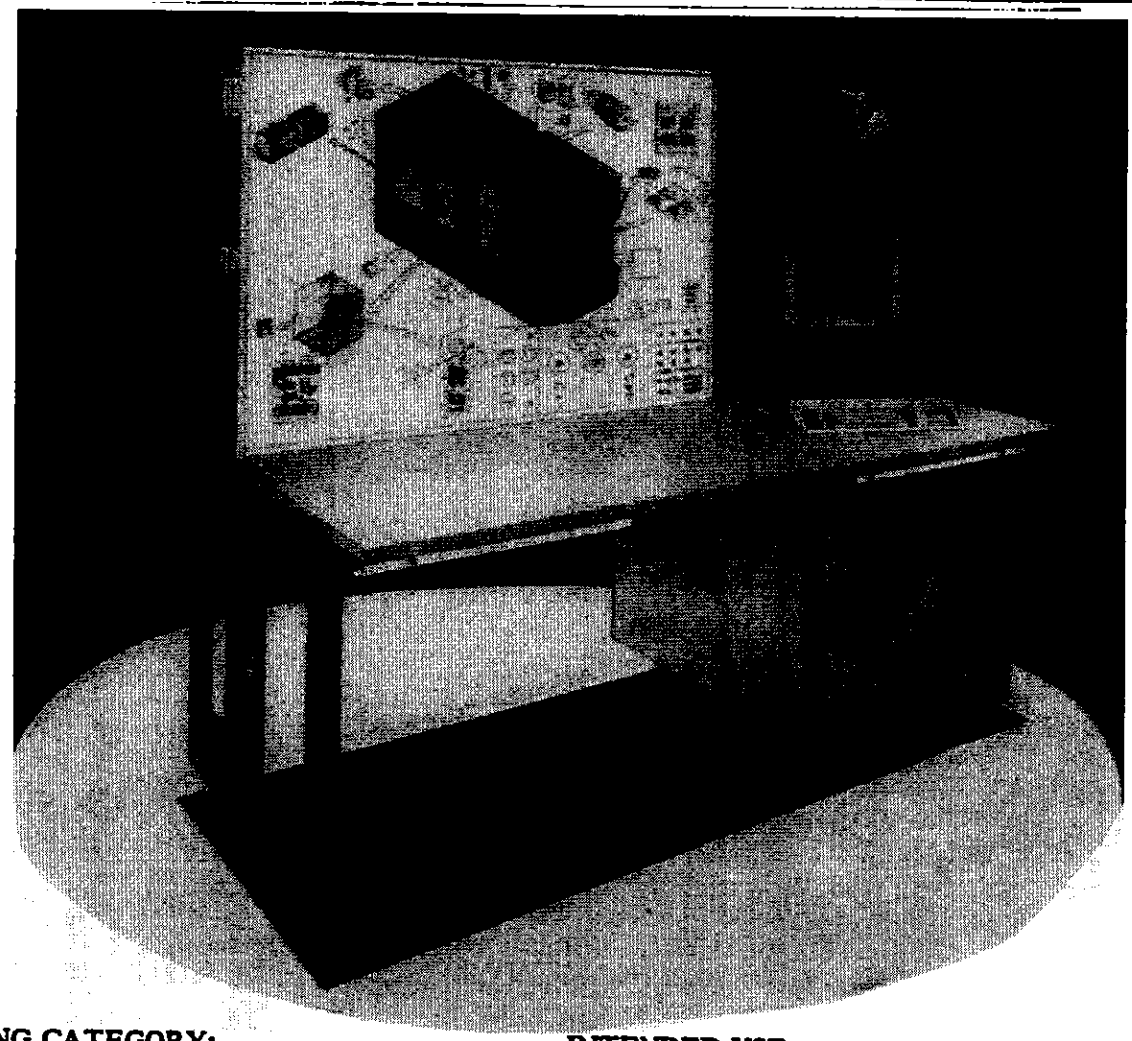
SUMMARY OF
UNIVERSAL MAINTENANCE TRAINING SYSTEM

January 1991 Device 11H118

NAVAL TRAINING SYSTEMS CENTER ORLANDO, FLORIDA



TRAINING CATEGORY:

Maintenance Training (Misc.)

ORIGINATING AGENCY

CMC

SECURITY CLASSIFICATION OF DEVICE:

Device 11H118 is unclassified.

PURPOSE OF DEVICE:

The purpose of the UMTS is to provide realistic troubleshooting and operational training for maintenance personnel tasked with support of systems related to diesel engines, hydraulic subsystems, electronics, and reverse osmosis water purification.

INTENDED USE:

In basic and advanced maintenance schools for class room training of enlisted personnel in troubleshooting and operation of tactical equipment.

FUNCTIONAL DESCRIPTION:

Device 11H118 UMTS is a networked panel trainer with associated software and video which allows one instructor to train up to 42 students at 21 individual stations at on time. The instructor station console uses a Local Area Network (LAN) to monitor the progress of all the trainees at each individual station and also maintains records of these students progress through the lessons. Control of all power in the system is provided at the instructor station.

The system supports up to 21 individual student stations each of which is capable of operating with any of Dv 11H118 series panels in any combination. The student station provides continuous monitoring of student progress through the lessons.

The student station hardware consists of a student desk, two headsets (with jacks for a total of 4 headsets), two videodisc players for video and audio cues, a microcomputer (IBM-AT compatible) and an intercom system. Software stored on the microcomputer's hard disk is automatically associated with it's corresponding panel when that panel is mounted and power is applied. Storage cabinets for up to five panels are provided to house the panels between training exercises.

The system operation can be divided into two basic modes, system normal mode, and malfunction mode. In system normal mode the simulation behaves as does the actual equipment allowing the student to inspect various components, and make test readings using simulated hydraulic pressure meters and electrical test equipment. Students may also operate the equipment using simulated starter switches, throttle controls, light switches and so forth as appropriate.

In the malfunction mode the instructor may load up to ten simulated faults into the student station for the trainees to isolate one by one. The student is presented with a symptom and is then uses standard maintenance manuals to troubleshoot down to the faulty component. Upon isolating the fault the student performs any repair actions required thereby completing the lesson. If another lesson remains in the lesson set it is automatically loaded into the student station for the student to continue troubleshooting. The system contains a facility for the instructor to make up sets of malfunctions ahead of time for use during classes. Any combination or order of faults for a particular system may be used.

PHYSICAL INFORMATION

Number of pieces:

1	Instructor station
(up to) 21	Student stations
(at least) 1	Storage cabinet (5 panels each)
(at least) 1	Panel per student station

Sizes:

Instructor Station:	47" high x 31" deep x 72" wide
Student Station:	78" high x 31" deep x 77" wide
Storage Cabinet:	48" high x 35" deep x 54" wide

Weight:

Instructor Station	345 lbs
Student Station	515 lbs
Cabinet w/5 panels	600 lbs

EQUIPMENT REQUIRED (NOT SUPPLIED):

None

POWER REQUIREMENTS:

Instructor Station:	440 W 3.7 A
Student Station:	490 W 4.1 A

PUBLICATIONS FURNISHED:

Computer System Operators Manual CDRL No. A00C
Operation and Maintenance Manual NTSC P-5770 (U)
Commercial Documentation NTSC P-5770-S1, -S2 (U)
On-The-Job Training Handbook NTSC P-5774 (U)
Instructor Utilization Handbook NTSC P-5773 (U)

PERSONNEL:

Instructor: One wage grade instructor for the following MOS':

Dv 11H118/1	MOS 1171
Dv 11H118/2	MOS 1142, 1141
Dv 11H118/3	MOS 1341
Dv 11H118/4	MOS 3521, 3529
Dv 11H118/5	MOS 3521, 3529, 3502
Dv 11H118/6	MOS 3521, 3529
Dv 11H118/6A	MOS 1341
Dv 11H118/7	MOS 3521, 3529
Dv 11H118/7A	MOS 1341
Dv 11H118/8	MOS 3521, 3529, 3537, 3522, 3502
Dv 11H118/9	MOS 3521, 3529, 3537, 3522, 3502
Operator:	Instructor operated
Trainees:	Class of up to 42
Maintenance:	One hour planned maintenance per 40 hour week.

CONTRACT IDENTIFICATION:

Manufactured by Titan Severe Environment Systems Company Chatsworth, California, under NAVTRASYSCEN Contract No. N61339-87-C-0050.